

## *The Safety Factor*

### I Care About Safety

Estevan R. López | Commissioner

For a moment, think about the things you care about most in life – time with family and friends, your favorite pastimes, the importance of your daily work and our important mission. For you, your coworkers and your loved ones, safety is of paramount importance. This is why we must constantly strive to maintain a safe environment for employees, contractors and our many visitors. For 114 years, we have shared a proud history of doing amazing work on behalf of the American people. One of my top priorities is to ensure we continue this tradition of safety and success. I want you to take your safety and the public's safety very seriously. It doesn't matter if you are a manager, team leader or a worker – we all need to have our words and actions proclaim: **"I Care About Safety."**

Unfortunately, in recent years, there have been some workplace injuries and incidents across Reclamation. These have caused us to reexamine our safety culture. In response to concerns that complacency may have crept into our workplace culture, we have developed a Safety Action Plan, with 21 teams of employees from across the employee and management spectrum to tackle specific areas of concern. The team recommendations will be a key to strengthen our safety

culture. The task at hand is to now evaluate and implement the teams' many recommendations.

Once this evaluation is complete, recommendations will be implemented Reclamation-wide in consultation with the Safety and Occupational Health Advisory Board. Also, because several recommendations from different teams are interrelated, work is now being done to link them together. For example, there were multiple recommendations that involve workforce training. Those will be blended into a single training curriculum.

I ask you to join me in thanking the many managers and employees who have worked tirelessly so far on our Safety Action Plan. As implementation moves ahead, we will share with you the specific objectives we intend to accomplish as we adjust program management, staffing, policies, safety training and communications activities to meet our goals. You can find current information at <http://intra.usbr.gov/safety>.

One final thing: If you feel that safety hazards are not being appropriately addressed, you should say something to your supervisor with the confidence that you have support from your

leadership chain, reaching to the highest levels of this organization. We cannot carry out our mission without your commitment. We want you to do the best work possible and to return home safely at the end of the day. Please join me in living the motto: "I Care About Safety."

Thank you for all you do to carry out our important mission. We can't do it without you.

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# Safety Action Plan Updates

## Recommendations Move to Implementation

Phoebe Percell | Deputy Director of Security, Safety, and Law Enforcement

All 125 recommendations from the Safety Action Teams have been distributed to their functional area in Reclamation (i.e.: Acquisitions, Safety Program, Policy). The Executive responsible for each of those functional areas has developed a plan for how they believe the recommendations will fit best and be most effectively implemented into Reclamation's business practices. Most of the teams' recommendations will be implemented. There are a few recommendations that cannot be implemented as described by the teams

due to restrictions with the Department of Interior policy or contradictions with other recommendations.

The Safety Advisory Board has reviewed these plans for consistency and to ensure that Reclamation is making changes that are sustainable and will have the desired impact.

Please remember that we are working to make long-lasting changes that will impact the entire culture of Reclamation. Those changes will not happen overnight. But they are

important changes that Reclamation's leadership is committed to see through for many years to come.

If you have any questions about what is happening in the implementation of the all of the great work that the teams did, or you would like to get involved in implementation, please contact [Matt Tracy](#) in Security, Safety, and Law Enforcement. He has been selected as the project manager to track the schedules and provide coordination of all of the implementation efforts.

## On the Safe Side

### September is... National Preparedness Month!

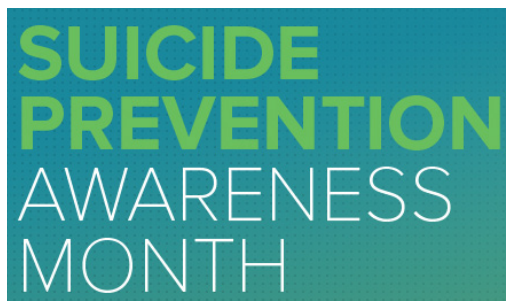
[Federal Emergency Management Agency](#)

September is recognized as National Preparedness Month which serves as a reminder that we all must take action to prepare, now and throughout the year, for the types of emergencies that could affect us where we live, work, and also where we visit. Due to the success of last year's theme, "Don't Wait, Communicate. Make Your Emergency Plan Today," will be returning with a continuing emphasis on preparedness for youth, older adults, and people with disabilities and others with access and functional needs.

[Click here for preparedness tips and information.](#)



### September is...



[National Alliance on Mental Illness](#)

September 2016 is also known as National Suicide Prevention Awareness Month which helps promote resources and awareness around the issues of suicide prevention, how you can help others and how to talk about suicide without increasing the risk of harm. Suicidal thoughts can affect

anyone regardless of age, gender, or background.

Suicide is the third leading cause of death among young people and is often the result of mental health conditions that effect people when they are most vulnerable.

[Click here for more information.](#)

# Near Miss/Lessons Learned

*The only way we can learn is to share our mistakes and improve our safety culture.  
To be a High Reliability Organization (HRO), we have to be a learning organization.*

## Lessons Learned: Watercraft Incident

Juli Smith | Lower Colorado Regional Safety and Occupational Health Manager

Here is a Lessons Learned from an incident that occurred a few years ago. The boat was recovered last fall so we had the rare ability to look at the hull for any additional info. We discovered there was not a lot of room on the load rating for more than about 2 people if they were over about 170 pounds.

In the process of developing the Lessons Learned, I reviewed a prior investigative report, and revisited the recommendations from the incident investigation.

I sent a notice to the manufacturer of the boat and tried to determine if there were any other incidents reported on this boat. We corresponded a few times, but no news from that.

### Scenario

Date Issued: June 28, 2016

Three employees were crossing a large open-body of water after conducting surveys when a large wave inundated their boat. The boat rapidly sank to a point where it could no longer be used for flotation. The employees reported the boat became neutrally buoyant about 15-25 feet below the surface. The employees were wearing personal flotation devices. Two employees swam to shore, and the third was rescued five hours later by one of the employees who after swimming to shore came for him in another boat. This incident occurred about 5 years ago, and an investigation was conducted at that time. The boat was recently recovered, and the incident was reviewed for any additional lessons that could be learned.

### Lessons Learned

- Boat selection is essential when conducting any watercraft operations. A deep “V” hulled boat is preferable for large open bodies of water. Selection starts prior to the purchase of a boat. Develop a process to review watercraft needs, safety features, and manufacturer specifications prior to acquiring a new piece of equipment.
  - Solutions implemented:
    - Newly purchased boats (Munson) are chosen for their utility, safety, and where the primary use will be.
    - During the reservation process, additional information is provided as to the uses for which a boat is approved.
- Pay attention to load capacity. Specially designed scientific boats may have limited load capacity once scientific equipment is installed.
- File a float plan and identify pre-specified communication means and intervals.
  - Solutions implemented:
    - Float plans are required to be submitted prior to departure.
    - On/off water communications have been implemented, National Park Service dispatch service will be used to cover night operational communication.

Continued on the next page

**Help us learn and improve our safety culture.** Send us your lessons learned or near misses. Names and locations aren't necessary. Pictures appreciated. Send your story for the next *Safety Factory* to [Theresa Gallagher](#).

## Lessons Learned: Watercraft Incident

Continued from previous page

- Inspect personal flotation devices (PFDs). Be sure PFDs have the required 200 cm<sup>2</sup> retro-reflective material to facilitate rescue.
  - Solutions implemented:
    - PFD's are inspected periodically by Boat and Dive Operations, Fish Group, and Safety Office personnel.
    - Formalized annual inspection event, Boats & BBQ initiated.
- Ensure the appropriate emergency equipment is onboard. Recommended equipment includes carrying a spare bilge pump, personal locator beacons, radios, waterproof flashlights, heat blankets, and provisions.
  - Solutions implemented:
    - Boat operators carry a personal locator beacon.
- Ensure operator training includes operation under the expected conditions. Experience in nighttime and open-body operations would have been beneficial.
  - Solutions implemented:
    - Night boating training has been added to the local Motorboat Operator Certification Course certification and renewal courses.
    - Forecast for the work locale is sent to the supervisor in addition to the float plan prior to departure. Sustained wind speeds exceeding 25 mph during the day and 20 mph during the night would represent a no-go condition requiring additional assessment, mitigation, and approval by the supervisor.
- Employees and supervisors need to be familiar with the Department of Interior's (DOI) Part 485 Chapter 22, Watercraft Safety requirements, the Reclamation Safety & Health Standards (RSHS), and U.S. Coast Guard regulations and inspection criteria. Every office should develop a Watercraft Safety Program (WSP) that meets the requirements of both the DOI and RSHS. The WSP should clarify the office requirements and procedures before an employee is allowed to work on the water.
- A job hazard analysis should be developed, reviewed, and approved by all team members and the supervisor prior to conducting work.
  - Solutions implemented:
    - Job Hazard Analysis' (JHA) are developed for all field and boating activities.

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## Mechanic Dies after Being Crushed Under Electrical Cabinet

New Jersey Case Report: 15NJ007 | Release Date: April 25, 2016

The following report is the product of our cooperative state partner and is presented here in its original unedited form from the state. The findings and conclusions in this report are those of the individual cooperative state partner and do not necessarily reflect the views or policy of the National Institute for Occupational Safety and Health.

### Summary

A 62-year-old male mechanic died after being crushed by a 993.5-pound electrical cabinet he was working on tipped over. The incident occurred in a decommissioned equipment storage area of a frozen food manufacturing facility. On the day of the incident, the victim was removing salvageable equipment from a nonworking electrical cabinet, when it tipped over and crushed him between the floor and the cabinet. The victim died less than an hour later from compressional asphyxia combined with chest and cervical spine injuries.

[Click here to read the full report.](#)





# Near Miss/Lessons Learned

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## Lessons Learned: Carbon Monoxide Hazard

Juli Smith | Lower Colorado Regional Safety and Occupational Health Manager

*Below is a Lessons Learned adapted from a [Pacific Northwest \(PN\) Safety Alert](#). This is a good reminder for people to check the carbon monoxide detectors and exhaust systems for functionality periodically – and in particular as we approach the heating season.*

**If you have a furnace in your home,  
this applies to you.**

Carbon monoxide (CO) is odorless and colorless and results from combustion of fuels (oil, wood, propane, or natural gas, i.e.). Forced-air furnace models that run on natural gas or propane produce carbon monoxide due to incomplete combustion. Most of the small amount of deadly gas is carried out of the home through the ventilation system. However, older models are prone to increased carbon monoxide production, and even the modern high efficiency models can pose a threat. If the furnace is not operating properly, or if a vent cracks, CO may leak into your home and cause flu-like symptoms (headaches, irritability, sleepiness) that signal potential carbon monoxide poisoning.

When a furnace is dirty or running at low efficiency, CO is being produced at a higher rate and the risk of carbon monoxide poisoning is increased.

Sometimes carbon monoxide can leak from cracks in the combustion chamber, and over time, the accumulated dirt in a furnace can create such an excess of CO that the ventilation system cannot contain it.

Although some of the latest furnace models have an automatic safety shut off switch that is triggered when a carbon monoxide leak occurs, older models are not equipped with this feature.

Regardless of the age and model of your furnace, and whether or not it is subject to regular maintenance, it is still important to install carbon monoxide detectors in your home.

This summary was adapted from Safety Alert issued by the PN Region Safety Office.

### Scenario

During a mechanical examination, CO levels were detected at 300 parts per million (ppm) in the valve house and the gate chamber using an air monitor. The CO source was a combination of an exhaust leak from a propane generator and a loose connection sleeve at the intake fan. This situation allowed the exhaust to be pulled into the suction side of ventilation blower between the blower housing and wall. Though the blower fan was receiving fresh air from outside of the building, the CO concentration from the exhaust was enough to make the gate chamber and concrete conduit (which are not considered a confined space) exceed the Occupational Safety and Health Administration (OSHA) permissible level of 50 ppm. On-site staff recognized this hazardous condition and reacted properly to evacuate the space and investigate the cause.

Upon closer examination, the generator exhaust system piping had fatigued at an area not readily visible along a horizontal portion that is approximately seven feet off the ground. Additionally, the intake fan connection sleeve was loose at the wall entry point allowing the mixing of exhaust into the fresh air intake.

Continued on the next page

## Recommendations and Corrective Actions

- Hazard assessments should include atmospheric hazards from potential failures in exhaust piping as part of the Job Hazard Analysis (JHA) when work activities are conducted in buildings with operating diesel/propane/gasoline engines.
- Supervisors will discuss this JHA with employees performing work during the review and signing process to communicate all hazards, mitigation controls, and specific instructions. Employees will participate, review, and sign the JHA.
- Atmospheric monitoring should be conducted when work activities are conducted in enclosed buildings with operating diesel/propane/gasoline engines.
- Fuel driven generators should be inspected periodically to ensure integrity of the exhaust systems with attention to connections, and adverse effects of vibration on exhaust and weld seam failures.
- Consideration should be given to installing carbon monoxide detectors in buildings where combustion by-products are



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## Safety Advisory

### Advantage® Respirator Cartridges Packaged Incorrectly

#### MSA

MSA recently learned that two lots of Advantage P100 cartridges and one lot of Advantage GMA-P100 cartridges were packaged in plastic bags identified as containing GME-P100 cartridges. Since the cartridges are less protective than the bags indicate, there is a potential risk that users could be overexposed.

The P100, GMA-P100, and GME-P100 Cartridges are National Institute for Occupational Safety and Health (NIOSH) approved for the following:

- P100 – all particulate aerosols
- GMA-P100 – organic vapors, and all particulate aerosols
- GME-P100 – organic vapors, chlorine, sulfur dioxide, chlorine dioxide, hydrogen chloride, hydrogen sulfide, ammonia, methylamine, formaldehyde, hydrogen fluoride, and all particulate aerosols

Although incorrectly packaged in bags identified as GME-P100, the P100 and GMA-100 cartridges are labeled correctly and each package contains a NIOSH approval insert that matches the cartridges. In addition, the over-pack boxes, containing multiple 2-packs of cartridges were labeled correctly as P100 or GMA-P100 cartridges.

[Click here to read the full story.](#)

Send us your lessons learned or near misses.  
Names and locations aren't necessary. Pictures appreciated.  
Send your story for the next *Safety Factory* to [Theresa Gallagher](#).

## Safety — Our Personal Obligation to Each Other

Don McBride | Safety and Occupational Health Manager | Phoenix Area Office

I could very well be a poster child for safety! I have been shot, poisoned, survived a helicopter crash, lost most of the hearing in both ears, and lost the vision in my right eye for over a year. Simply put, much of these outcomes could have very well been prevented if I had been more cognizant of proper and effective safety practices and had I avoided risky behavior.

### Why do people take safety and occupational health risks?

Approximately 90% of all accidents are triggered by unsafe (At-Risk) behavior.

Accidents occur primarily because of the direct or indirect behavior of people. Invariably because people are innately vulnerable and take risks! We are ALL risk takers in some form or another.

A person's propensity to engage in risky behavior is increased if a risk has not previously caused harm in past experiences.

People are vulnerable and are presented with opportunities to engage in risky behavior nearly every day. A person engaging in risky behavior not only endangers themselves but often endanger the lives and well-being of others around them. Risk tolerance is the amount of risk an individual is willing to assume in pursuit of a goal and is thought to be a key component in determining the actions we take in our daily lives.

Risky behavior is driven by both our individual personality traits and the situations we are presented. Willingness to take on risk is driven by many factors and differing risk tolerances which can influence our decision making – anywhere from a person's impulse (or lack thereof) to drive while intoxicated or taking any type of social or financial investment risk.

Behavior does not happen in a vacuum. Most observers will say that an individual's behavior caused the accident. **But why did this behavior occur?**

Employers are responsible for providing a safe and healthful workplace environment. Ultimately, it is the culture of the organization that can directly influence employee behavior. If there are no consequences for unsafe practices such as failing to wear a seat belt, texting or using a cell phone while operating a vehicle, or not wearing a hard hat or other personal protective equipment on an active construction site, employees may assume that management does not consider safety a top priority. This complacency or "limited" effort by employers to effectively educate and implement a significant injury prevention safety program will result in an increased risk of serious injuries from workplace accidents.

A company's efforts to implement and educate employees with a strong safety program does not "full proof" or prevent all accidents or health hazards from occurring. A combined effort of effective programs and employee acceptance of personal responsibility to eliminate risky behaviors is required to reduce accidents and injuries.

Are all workplace accidents preventable? The answer is (unfortunately) "No."



## Vision Statement

*Reclamation embraces safety excellence by empowering employees and integrating safety into our mission, achieving a culture which results in a safe environment for our employees, contractors, visitors and the public.*

# U.S. Mine Safety Agency Issues Safety Alert for Drill Operators

[U.S. Department of Labor](#)

Mine drill operators face their share of on-the-job risks. Failing to follow safe drilling practices can lead to fatal outcomes, as has been the case in recent years. In April 2014, a 53-year-old miner died in an underground gold mine in Elko County, Nevada, after his clothing caught in a jackleg drill. Less than two years earlier, a 30-year-old contract driller at a shale quarry in Ulster County, New York, died in November 2012, as he attempted to thread a new drill steel manually when the drill head rotated and entangled him.

In fact, at least seven workers died in metal and nonmetal mining accidents involving drills since 2002.

To focus industry attention on safe drilling practices and the importance of well-maintained equipment, the U.S. Department of Labor's Mine Safety and Health Administration issued a drill entanglement safety alert to the mining community on August 10.

[Click here to read the full story.](#)

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## On the Safe Side

### 'Noisy Planet' Campaign Focuses on Hearing Protection

*Editor's note: The NIDCD supports and conducts research and research training on the normal and disordered processes of hearing, balance, taste, smell, voice, speech, and language and also provides health information, based upon scientific discovery, to the public.*

[National Institute on Deafness & Other Communication Disorders](#)

[It's a Noisy Planet. Protect Their Hearing](#) is a national public education campaign aimed at preteens (children ages 8 to 12), their parents, and other educators with the goal of increasing awareness of the causes and prevention of noise-induced hearing loss.

The science-based program was developed by the National Institute on Deafness and Other Communication Disorders, that parents and caregivers are the primary influence on this age group. With Noisy Planet tools and information, parents and other adults can encourage children to adopt healthy hearing habits before and during the time that they develop listening, leisure, and working habits. Noisy Planet's three key preventions messages are:

- Lower the volume.
- Move away from the noise.
- Use hearing protectors, such as earplugs or earmuffs.

Children are regularly exposed to noise levels that could

permanently damage their hearing over time. Decibel levels from activities like doing yard work, playing a band instrument, and attending sports events can lead to hearing loss. Research suggests that hearing loss caused by loud sounds at an early age may speed up age-related hearing loss later in life. The good news is that hearing loss caused by loud noise is completely preventable.

### Occupational Hearing Conservationist Course Available

[Council for Accreditation in Occupational Hearing Conservation](#)

Search for occupational hearing conservationist courses by state, country, month, year, or course director name. For a map of all courses and locations, [click here](#).

### Observation & Prevention

I observed a maintenance crew member working to close to a leading edge. I reminded the employee about fall hazards and fall protection.

Send your observation and prevention stories to [Theresa Gallagher](#).



[Public Health Emergency Weekly Report](#)

National Safety Council  
[Safety Spotlight](#)

[Occupational Health & Safety Digital Edition](#)